

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A method of performing a handover of a multimode terminal from a WCDMA network to a CDMA-2000 network, the method comprising the steps of:

(a) ~~receiving upon detecting that~~ a WCDMA dummy pilot signal, which is received at the ~~level measurement message at a multimode terminal from a peripheral base transceiver station (BTS) of a CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network, is higher than a prescribed level,~~ (a1) turning on a CDMA-2000 modem mounted on the multimode terminal and (a2) transmitting a level value of ~~[[a]] the WCDMA dummy pilot signal to a WCDMA system, upon detecting the dummy pilot signal above a prescribed level out of the WCDMA signal level measurement message;~~

(b) determining whether to perform a handover or not based on the level value of the WCDMA dummy pilot signal received from the multimode terminal;

(c) transmitting a handover request message from the WCDMA system to ~~[[a]]~~ the CDMA-2000 system when it is determined to perform the handover;

(d) transmitting a handover command message from the WCDMA system to the multimode terminal; and

(e) switching ~~allowing~~ traffic to ~~be switched~~ to the CDMA-2000 modem of the multimode terminal that has been already turned on;

~~wherein the dummy pilot signal is transmitted from the CDMA 2000 system located in a border area between the WCDMA network and the CDMA 2000 network;~~

wherein the WCDMA dummy pilot signal includes a specific scramble code; and

wherein, at step (d), when the multimode terminal receives the handover command message, the CDMA-2000 modem of the multimode terminal is maintained ~~turned~~ on and a WCDMA modem of the multimode terminal is turned off.

2. (Original) The method as claimed in claim 1, wherein step (c) includes the steps of:

(c1) transmitting the handover request message from the WCDMA system to a protocol converter when it is determined to perform the handover;

(c2) performing a protocol conversion for the handover request message at the protocol converter; and

(c3) transmitting the protocol-converted handover request message from the protocol converter to the CDMA-2000 system.

3. **(currently amended)** The method as claimed in claim 1, further comprising:

transmitting a wherein the WCDMA signal level measurement message that includes (i) information on peripheral ~~base stations~~ BTSS of the CDMA-2000 system which are located in the border area and which should be searched by the multimode terminal and (ii) information on the WCDMA dummy pilot signal.

4. *(canceled)*

5-6. (cancelled)

7. **(currently amended)** The method as claimed in claim 1, wherein, in the WCDMA system ~~includes:~~

a radio transceiver subsystem (RTS) receives ~~for receiving~~ the level value of the WCDMA dummy pilot signal from the multimode terminal and transmits ~~transmitting~~ the level value of the WCDMA dummy pilot signal; and

a radio network controller (RNC) receives ~~for receiving~~ the level value of the WCDMA dummy pilot signal from the RTS, determines ~~radio transceiver subsystem, determining~~ whether to perform the handover for the multimode terminal, and transmits ~~transmitting~~ the handover request message and/or the handover command message upon the determination that the handover is to be performed.

8. **(currently amended)** The method as claimed in claim 1, wherein, in the CDMA-2000 system ~~includes~~:

~~a base transceiver station (BTS) for transmitting the~~ BTS transmits the WCDMA dummy pilot signal to the multimode terminal; and

a base station controller (BSC) receives ~~for receiving~~ the handover request message from the WCDMA system.

9. **(currently amended)** The method as claimed in claim ~~[[1]]~~ 3, wherein, at step (a), the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message therefrom.

10.

(Cancelled)

11. **(currently amended)** A method of performing a handover of a multimode terminal including a WCDMA modem and a CDMA-2000 modem from a WCDMA network to a CDMA-2000 network ~~by means of a WCDMA system for determining whether to perform the handover or not, a CDMA 2000 system for transmitting a dummy pilot signal, and a multimode terminal including a WCDMA modem and a CDMA 2000 modem~~, the method comprising the steps of:

generating, by at least a peripheral base transceiver station (BTS) of a CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network, a WCDMA

dummy pilot signal;

~~(a) receiving transmitting a WCDMA signal level measurement message that includes information on the WCDMA dummy pilot signal [[at a]] to the multimode terminal;~~

[[(b)]] detecting the WCDMA dummy pilot signal from the WCDMA signal level measurement message received at the multimode terminal, and comparing a level value of the detected WCDMA dummy pilot signal with a predetermined threshold value;

[[(c)]] turning on [[a]] the CDMA-2000 modem of the multimode terminal and transmitting the level value of the WCDMA dummy pilot signal to the WCDMA system, when the level value of the WCDMA dummy pilot signal is larger than the predetermined threshold value;

[[(d)]] determining, by the WCDMA system, whether to perform the handover or not based on the level value of the WCDMA dummy pilot signal ~~at the WCDMA system~~;

~~(e) transmitting a handover request message to the CDMA 2000 system when it is determined to perform the handover at the WCDMA system;~~

~~(f) transmitting a handover command message from the WCDMA system to the multimode terminal; and~~

~~(g) allowing traffic to be switched to the CDMA 2000 modem of the multimode terminal; wherein the dummy pilot signal is transmitted from the CDMA 2000 system located in a border area between the WCDMA network and the CDMA 2000 network;~~

~~wherein the dummy pilot signal includes a specific scramble code; and~~

~~wherein, in step f), when the multimode terminal receives the handover command message, the CDMA 2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off.~~

12. **(currently amended)** The method as claimed in claim 11, further comprising wherein step (e) includes the steps of:

[[(e1)]] transmitting [[the]] a handover request message to a protocol converter when the WCDMA system determines ~~it is determined to perform the handover at the WCDMA system~~;

[[e2]] performing a protocol conversion for the handover request message at the protocol converter; and

[[e3]] transmitting the protocol-converted handover request message from the protocol converter to the CDMA-2000 system ~~at the protocol converter~~.

13. **(currently amended)** The method as claimed in claim 11, wherein the WCDMA signal level measurement message further includes information on peripheral BTSs ~~base stations~~ which are located in the border area and should be searched by the multimode terminal ~~and information on the dummy pilot signal~~.

14. *(canceled)*

15-16. (Cancelled)

17. **(currently amended)** The method as claimed in claim 11, wherein, in the WCDMA system ~~comprises~~:

a radio transceiver subsystem (RTS) receives ~~for receiving~~ the level value of the WCDMA dummy pilot signal from the multimode terminal and transmits ~~transmitting~~ the level value of the WCDMA dummy pilot signal; and

a radio network controller (RNC) receives ~~for receiving~~ the level value of the WCDMA dummy pilot signal from the RTS, determines ~~radio transceiver subsystem, determining~~ whether to perform the handover for the multimode terminal, and transmits (i) a ~~transmitting the~~ handover request message from the WCDMA system to the CDMA-2000 system and/or (ii) a ~~[[the]]~~ handover command message from the WCDMA system to the multimode terminal.

18. **(currently amended)** The method as claimed in claim ~~[[11]]~~ 17, wherein, in the CDMA-2000 system ~~includes~~:

~~a base transceiver station (BTS) for transmitting the dummy pilot signal to the multimode terminal; and~~

a base station controller (BSC) receives ~~for receiving~~ the handover request message from the WCDMA system.

19. **(currently amended)** The method as claimed in claim 11, wherein, ~~in step a)~~, the multimode terminal periodically searches a common pilot channel (CPICH) and receives the WCDMA signal level measurement message therefrom.

20. (Cancelled)

21. **(currently amended)** A system for performing a handover of a multimode terminal from a WCDMA network to a CDMA-2000 network by means of a WCDMA dummy pilot signal, the system comprising:

a multimode terminal for

receiving a WCDMA signal level measurement message,

detecting the WCDMA dummy pilot signal from the WCDMA signal level measurement message,

turning on a CDMA-2000 modem embedded in the multimode terminal and transmitting a level value of the WCDMA dummy pilot signal, when ~~detecting~~ the detected WCDMA dummy pilot signal is above a prescribed level ~~out of the WCDMA signal level measurement message;~~

a WCDMA system for receiving the level value of the WCDMA dummy pilot signal from the multimode terminal, determining whether to perform the handover, and transmitting a handover request message and/or a handover command message when it is determined to perform the handover; and

a CDMA-2000 system for transmitting the WCDMA dummy pilot signal to the multimode

terminal;

wherein the WCDMA dummy pilot signal is transmitted from a peripheral base transceiver station (BTS) of the CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network;

wherein the WCDMA dummy pilot signal includes a specific scramble code; and

wherein, when the multimode terminal receives the handover command message, the CDMA-2000 modem of the multimode terminal is maintained ~~turned~~ on and a WCDMA modem of the multimode terminal is turned off.

22. (Original) The system as claimed in claim 21, further comprising a protocol converter for converting a protocol of messages transferred between the WCDMA system and the CDMA-2000 system.

23. **(currently amended)** The system as claimed in claim 21, wherein the multimode terminal is configured to use ~~capable of using~~ both a synchronous CDMA-2000 service and an asynchronous WCDMA service and ~~[[uses]]~~ at least two frequency bands.

24. **(currently amended)** The system as claimed in claim 21, wherein, when the multimode terminal receives the handover command message, traffic is switched to the CDMA-2000 modem ~~of the multimode terminal~~ that has already been turned on.

25. **(currently amended)** The system as claimed in claim 21, wherein the WCDMA signal level measurement message includes information on peripheral BTSs ~~base stations~~ which are located in the border area between the WCDMA network and the CDMA-2000 network and which should be searched by the multimode terminal and information on the WCDMA dummy pilot signal.

26. (*canceled*)

27-28. (Cancelled)

29. (**currently amended**) The system as claimed in claim 21, wherein the WCDMA system includes:

a radio transceiver subsystem (RTS) for receiving the level value of the WCDMA dummy pilot signal from the multimode terminal and transmitting the received level value of the WCDMA dummy pilot signal; and

a radio network controller (RNC) for receiving the level value of the WCDMA dummy pilot signal from the RTS ~~radio transceiver subsystem~~, determining whether to perform the handover for the multimode terminal, and transmitting the handover request message or the handover command message.

30. (**currently amended**) The system as claimed in claim 21, wherein the CDMA-2000 system includes:

at least one said peripheral BTS ~~a base transceiver station (BTS)~~ for transmitting the WCDMA dummy pilot signal to the multimode terminal; and

a base station controller (BSC) for receiving the handover request message from the WCDMA system.

31. (**currently amended**) The system as claimed in claim 21, wherein the multimode terminal is configured to periodically search ~~searches~~ a common pilot channel (CPICH) and receive ~~receives~~ the WCDMA signal level measurement message therefrom.

32. (Cancelled)

33. **(currently amended)** A WCDMA system for performing a handover of a multimode terminal from a WCDMA network to a CDMA-2000 network by means of a WCDMA dummy pilot signal, the WCDMA system comprising:

a radio transceiver subsystem (RTS) for receiving a level value of the WCDMA dummy pilot signal from a multimode terminal and transmitting the received level value of the WCDMA dummy pilot signal; and

a radio network controller for receiving the level value of the WCDMA dummy pilot signal from the RTS ~~radio transceiver subsystem~~, determining whether to perform the handover for the multimode terminal, and transmitting a handover request message or a handover command message to a CDMA-2000 system or the multimode terminal, respectively, when it is determined to perform the handover;

wherein the WCDMA dummy pilot signal ~~includes a specific scramble code; and~~

~~wherein, when the multimode terminal receives the handover command message, a CDMA 2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off~~ is transmitted from a peripheral base transceiver station (BTS) of the CDMA-2000 system located in a border area between the WCDMA network and the CDMA-2000 network.

34-36. *(canceled)*

37-38. (Cancelled)

39. **(currently amended)** A CDMA-2000 system for performing a handover of a multimode terminal from a WCDMA network to a CDMA-2000 network by means of a WCDMA dummy pilot signal, the CDMA-2000 system comprising:

a base transceiver station (BTS) for transmitting the WCDMA dummy pilot signal, ~~which is a WCDMA pilot signal including a specific scramble code assigned in advance, to the~~

multimode terminal, said BTS is located in a border area between the WCDMA network and the CDMA-2000 network; and

a base station controller (BSC) for receiving a handover request message from a WCDMA system;

~~wherein, when the multimode terminal receives a handover command message, a CDMA 2000 modem of the multimode terminal is turned on and a WCDMA modem of the multimode terminal is turned off~~ in response to the WCDMA dummy pilot signal received at the multimode terminal.

40-43. (*canceled*)

44. (Cancelled)

45. (**currently amended**) A multimode terminal capable of using both synchronous CDMA-2000 service and asynchronous WCDMA service and ~~using~~ at least two frequency bands, the multimode terminal comprising:

an RF antenna for transmitting/receiving CDMA-2000 signals and/or WCDMA signals;

an RF transmission/reception unit for receiving and demodulating a WCDMA dummy pilot signal sent from the RF antenna, and outputting ~~[[a]] the~~ demodulated WCDMA dummy pilot signal;

a pilot signal measurement unit for measuring intensity of the demodulated WCDMA dummy pilot signal;

a WCDMA modem and a CDMA-2000 modem for processing a digital signal received from the RF transmission/reception unit and performing a call processing according to protocols respectively defined in ~~[[a]] the~~ WCDMA standard and ~~[[a]] the~~ CDMA-2000 standard;

a flash memory for storing an inter-modem switching program for performing a switching between the WCDMA modem and the CDMA-2000 modem according to a command from a

WCDMA system; and

a controller for turning on the CDMA-2000 modem and ~~causing~~ ~~controlling~~ a level value of the WCDMA dummy pilot signal to be transmitted to the WCDMA system, when the WCDMA dummy pilot signal above a specific level is detected;

wherein, when the multimode terminal receives a handover command message from the WCDMA system, the controller loads the inter-modem switching program from the flash memory, ~~maintains~~ ~~controls~~ the CDMA-2000 modem to be turned on, and controls the WCDMA modem to be turned off;

wherein the WCDMA dummy pilot signal is transmitted from a peripheral base transceiver station (BTS) of a CDMA-2000 system located in a border area of a WCDMA network and a CDMA-2000 network; ~~and~~

~~wherein the WCDMA dummy pilot signal includes a specific scramble code assigned in advance.~~

46. (Cancelled)

47. (*canceled*)

48-49. (Cancelled)

50. (*canceled*)

51. (**currently amended**) The multimode terminal as claimed in claim 45, being configured to ~~wherein the multimode terminal~~ periodically ~~search~~ ~~searches~~ a common pilot channel (CPICH) and ~~receive~~ ~~receives the CDMA 2000 signals and/or the WCDMA signals therefrom a~~ WCDMA signal level measurement message that includes (i) information on peripheral BTSs of the CDMA-2000 system which are located in the border area and which should be searched by the

Serial No. 10/579,348

multimode terminal and (ii) information on the WCDMA dummy pilot signal.